



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/826,266	04/19/2004	Ren-Hao Liu	3313-1162PUS1	9404

2292 7590 03/26/2008
BIRCH STEWART KOLASCH & BIRCH
PO BOX 747
FALLS CHURCH, VA 22040-0747

EXAMINER

MAHMOUDZADEH, NIMA

ART UNIT	PAPER NUMBER
----------	--------------

2619

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

03/26/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

mailroom@bskb.com

Office Action Summary	Application No. 10/826,266	Applicant(s) LIU, REN-HAO	
	Examiner NIMA MAHMOUDZADEH	Art Unit 2619	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-9 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-9 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Response to Amendment

1. Applicant's amendment filed on 12/18/2007 has been entered. Claim 1-9 are still pending in this application, with claim 1 being independent.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 1-9 are rejected under 35 U.S.C. 103(a) as being unpatentable over Shabtay et al. (US Patent No. 6,895,441) in view of Vasseur et al. (US Patent No. 7,230,913).

Regarding claim 1, Shabtay et al. teach a method for multi-protocol label switching (MPLS) link protection comprising the steps of:

checking that a label switching path (LSP) breaks down (Column 8, lines 15-19);
rearranging to obtain an auxiliary backup LSP (Column 4, lines 9-13) according to the current resource distribution in the MPLS network (Column 4, lines 4-13);

checking if the broken LSP is recovered (Column 8, lines 14-21 also, see column 9, lines 12-15 that discloses revertive process in order to switch back to original working path);

restoring the LSP (column 9, lines 4-11 also see column 9, lines 12-15);

Shabtay et al. fail to teach establishing a backup LSP with no bandwidth reservation and;

redirecting the LSP to the backup LSP with no bandwidth reservation.

However, Vasseur et al. teach establishing a backup LSP with no bandwidth reservation (See claim 1 lines 42-45); and

redirecting the LSP to the backup LSP with no bandwidth reservation (Column 2, lines 14-20).

Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to modify backup structure of Shabtay et al. to include no bandwidth reservation disclosed by Vasseur et al. in order to prevent overhead.

Regarding claim 2, Shabtay et al. teach the method of claim 1, wherein in the step of checking that a label switching path (LSP) breaks down a router before the breaking point sends out a fault information signal to an ingress router of the LSP (Column 8, lines 25-29).

Regarding claim 3, Shabtay et al. teach the method of claim 2, wherein the router before the breaking point simultaneously sends at least two (Column 9, lines 31-48 and lines 55-57) of the fault information signals (Column 9, lines 39-49).

Regarding claim 4, Shabtay et al. teach the method of claim 1, wherein each of the default backup LSP's is defined according to the transmission capacities (Column 11, lines 4-6) of the LSP and of the backup LSP (Column 11, lines 2-19).

Regarding claim 5, Shabtay et al. teach the method of claim 1 further comprising the step of waiting a default failure time (Column 9, line 29) before the step of rearranging to obtain an auxiliary backup LSP according to the current resource distribution in the MPLS network (column 9, lines 26-29).

Regarding claim 6, Shabtay et al. teach the method of claim 1, wherein in the step of checking if the broken LSP (Column 9, line 51) is recovered a router before the breaking point (Column 9, line 53) sends a recovery signal to an ingress router of the LSP (Column 9, lines 51-57).

Regarding claim 7, Shabtay et al. teach the method of claim 6, wherein the router before the breaking point simultaneously sends two of the signals (Column 9, lines 31-48 and lines 55-57).

Regarding claim 8, Shabtay et al. teach the method of claim 1 further comprising the step of waiting a default available time before the step of restoring the LSP (Column 10, lines 1-4).

Regarding claim 9, Shabtay et al. teach the method of claim 1, wherein the step of restoring the LSP rearranges to obtain a restored LSP according to the current resource distribution of the MPLS network and redirects the LSP to the restored LSP (Column 9, lines 4-24).

Response to Arguments

Applicant's arguments with respect to claim 1 have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

4. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to NIMA MAHMOUDZADEH whose telephone number is (571)270-3527. The examiner can normally be reached on Monday - Friday, 8am-5pm.

Art Unit: 2619

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chirag G. Shah can be reached on (571) 272-3144. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

Nima Mahmoudzadeh
AU 2619

**/Chirag G Shah/
Supervisory Patent Examiner, Art Unit 2619**